

GAL, Gyorgy, dr.

Medical services for industrial workers. Nepegeszsseguy 41 no.10:
277-285 0 '60.

(INDUSTRIAL MEDICINE)

GAL, Gyorgy, dr.; NEMETH, Andras, dr.

Role of the "absolute" eosinophil count in the prognosis of acute uremia. Orv.hetil. 101 no.50:1770-1773 11 D'60.

1. Szegedi Orvostudományi Egyetem, I. Sebészeti Klinika.
(UREMIA blood)
(EOSINOPHILS)

GAL, Gyorgy, dr.; PAAL, Gyorgy, dr.

More important questions relating to the development and
organization structure of factory sanitation. Munkavedelem
7 no.7/9:26-30 '61.

NEMETH, Andras, dr.; GAL, Gyorgy, dr.; FAZAKAS, Sandor, dr.

The role of hypermagnesemia in uremic "toxicosis". Orv. hetil. 102
no.20:913-917 14 My '61.

1. I sz. Sebészeti Klinika, Szeged.

(MAGNESIUM blood) (UREMIA blood)

HUNGARY

GAL, Gyorgy, Dr, NEMETH, Andras, Dr, FAZEKAS, Sandor, Dr; Medical University of Szeged, I. Surgical Clinic (Szegedi Orvostudományi Egyetem, I. Sebészeti Klinika).

"Some Aspects of Kidney Complications Following Septic (Criminal) Abortus."

Budapest, Orvosi Hetilap, Vol 104, No 23, 9 June 63, pages 1066-1069.

Abstract: [Authors' Hungarian summary] Clinical data and conclusions are presented on 24 cases of kidney failure following septic abortions. Eight deaths are reported. The applied combined treatment for the acute uremia was effective and decrease of the mortality rate is expected from a more effective treatment of the inflammatory complications that followed. 11 Hungarian, 4 Western references.

1/1

HUNGARY

"APPROVED FOR RELEASE: 09/17/2001" CIA-RDP86-00513R000614020002-6

ALTORJAY, Istvan, Dr, SCULTETTY, Sandor, Dr, BALOGH, Eleonora, Dr, KARPATI, Ferenc, Dr; Medical University of Szeged, I. Surgical Clinic (Szegedi Orvostudományi Egyetem, I. Sebészeti Klinika).

"Kidney Homotransplantation Between Brothers."

Budapest, Orvosi Hetilap, Vol 104, No 43, 27 Oct 63, pages 2017-2023.

Abstract: [Authors' Hungarian summary modified] Homotransplantation of a kidney has been performed on a patient in the final stages of uremia. Before surgery, 150 r whole-body irradiation and 200 r local irradiation on the spleen has been given. Immediately after surgery and four days later, 200 r doses each were applied to the transplanted kidney. Because of impaired function later, a total of 250 r were given to the whole body and 200 r to the transplant, in order to prevent the rejection process. The transplant functioned well for 6 weeks and during this time the condition of the patient was good. After a gradual impairment of function, the patient died on the 79 post-operative day under uremic and septic symptoms. Sixteen days before death, the other kidney has been removed. No typical rejection processes were indicated by the histological examination of the transplant but the extensive obliterating vessel changes, of unknown cause, explain the gradual decrease of kidney function. 1 Hungarian, 8 Western references.

1/1

GAL, Gyorgy, dr.; FAZAKAS, Sandor, dr.; NEMETH, Andras, dr.

Dialysis in the treatment of barbiturate poisoning. Orv. hetil.
106 no.26:1211-1213 27 Je'65.

1. Szegedi Orvostudományi Egyetem, I. Sebészeti Klinika (igaz-
gato: Petri, Gabor, dr.).

GAL, Gyorgy Sendor

Liszt-Bartok Year. Hungarian TU no.9:20-21 S "61.

GAL, GY.

HUNG

*28. Determination of the halogen content of organic compounds — I. Simonvi, G. Tokár and Gy. Gál, (Magyar Kémiai Folyóirat — Vol. 80, 1957, No. 4, pp. 97-98, 1 tab.)

The process is suitable for the simple and rapid determination of the halogen contents of organic compounds. The method is based on the dehalogenation process effected by reduction. The determination was carried out in acid or basic media — depending on the nature of the compound — with nascent hydrogen in the presence of hydrogen transporting catalysts. Raney nickel catalyst with a 2-3% aluminium content was found convenient in basic solutions. In acid media granulated zinc and sulphuric acid were used to produce hydrogen, and palladium charcoal was used as a catalyst. After the dehalogenation process was completed (about 30 to 60 minutes), the halogen ions set free in the solution were determined by the Volhard method. The compounds examined — containing hydrogen instead of the halogen atoms, and the reducible groups reduced — could be recovered in most cases from this solution for further analysis. Error of the method is $\pm 0.5\%$.

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[Handwritten signature]

GAL, GY.

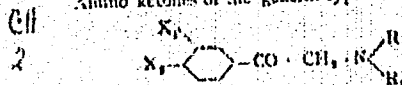
Preparation of 4-hydroxyphenylglyoxal by the condensation of phenol and chloral. G. Gal (Sci. Technol. and Ind. Synth., Magyar Kémiai Folyóirat, 8:8 (1954); Hung. Tech. Abstr. 7, No. 2, 4-6 (1955)). The reaction mixture obtained by the condensation of phenol with chloral in alkaline media (in the presence of potassium carbonate) contains 80% to 70% 4-hydroxyphenyl(trichloromethyl)carbinol, some unreacted starting material (phenol and chloral) and a small amount of resinous product. Isolation of 4-hydroxyphenylglyoxal, i.e. its bisulfite K salt, an important intermediate in the prepn. of 4-hydroxyphenylmethylamine ethanol (Sym-patal), was successfully carried out starting from this crude condensation product. By the procedure described 4-hydroxyphenylglyoxal was obtained in yields of 82 to 93% from the crude condensation product obtained by treating phenol with chloral, boiling 10-11 hrs. with a 20-fold vol. of water in the presence of cupric chloride as a catalyst to accelerate hydrolysis and potassium pyrosulfite as an acid-binding agent. The importance of the presence of an acid-binding substance is stressed to prevent the formation of resinous products by the action of HCl, liberated during the hydrolysis, on the 4-hydroxyphenylglyoxal oxime, thereby reducing the over-all yield. Methods are given for the volumetric detn. of the 4-hydroxyphenyl(trichloromethyl)carbinol content of the crude condensation product (1 ml. of 0.1N AgNO₃ corresponding to 8.03 mg. 4-hydroxyphenyl(trichloromethyl)carbinol) and for the indirect titration of the 4-hydroxyphenylglyoxal by the bisulfite process.

R. H. S. 1-1

GAL, QY

24. The reactions of aryl α -aminoalkyl ketones with Fehling's reagent. — 1. Simon, Gy. Gal. G. Tokar. (Magyar Kémiai Folyóirat) 1934, No. 10, pp. 289-292, 3 tabs.

Amino ketones of the general type



where X_1 and $X_2 = \text{H, OH, NH}_2, \text{NO}_2$; R and $\text{R}_1 = \text{H, CH}_3, \text{C}_2\text{H}_5, \text{C}_3\text{H}_7, \text{C}_4\text{H}_9, \text{C}_6\text{H}_5, \text{C}_6\text{H}_4$. Boiled with Fehling's solution yield N_2 , N_2 -substituted benzaldehydes, formic acid and a substituted aliphatic amine of the general type $\text{HN} \begin{array}{l} \nearrow \text{R} \\ \searrow \text{R}_1 \end{array}$ by oxidative hydrolysis. It was found that the formation of the amine proceeds quantitatively and thus a convenient method is given for the simple and rapid determination of the compounds with the general formula mentioned above. The determination is carried out conveniently in a Schlenk-Vasaghi ammonia distillation apparatus. The sample of amino ketone hydrochloride was weighed on an analytical balance, dissolved in water and added drop by drop to boiling Fehling's solution. The volatilized amine compound formed was

(OVER)

I. Spivak

absorbed into standard acid of known volume. By backtitrating the excess acid the amount of amine formed -- equivalent to the amount of amino ketone present -- was calculated.

7/2

QAL, CY.

Detection of small amounts of 2-diethylaminoethyl p-nitrobenzoate in the presence of procaine. *Chem. Zvesti.* 1954, 8, 321-3 (1954); *Hung. Tech. Abs.* 7, No. 3, 5 (1955). A method was evolved for the detection of 2-diethylaminoethyl p-nitrobenzoate (I) in the presence of procaine. Both compounds will form water-insol. ppts. with 10% reagents. The complex salts thus obtained show different solubilities in acid media owing to the nitro or amino substituents on the phenyl radicals. A procedure is described which is suitable for the detection of the nitro compd. by using picric acid in a mixt. composed of 98% procaine and 2% I. It was possible to detect 0.3% of I in the presence of 0.1 g. procaine dissolved with 10 ml. mercuric in 10 ml. of water. The method is adequate for the rapid and simple detection of the end point during the reduction of the I.

K. L.

G. A. I. Gy.

16. Investigations concerning the synthesis and determination of tropinone. (In English) Gy. G. A. I. Simonyi, G. Tokár. *Acta Chimica Academiae Scientiarum Hungaricae*, Vol. 6, 1955, No. 3-4, pp. 365-371, 3 tabs.

Chem

In contrast to the 54% yield attained earlier by some researchers the author succeeded in preparing tropinone with an 80% yield (referred to succinic dialdehyde) starting from succinic aldehyde, acetone dicarboxylic acid and methylamine in the presence of sodium citrate. A method was evolved at the same time for the rapid and accurate quantitative determination of tropinone in samples taken from the batches during the synthesis process. The method involves the preparation of the water, acid and ethanol-insoluble reineckate, and tropinone is determined gravimetrically in this form. With this new procedure the formation of tropinone is completed in six hours at 22 °C and four hours at 32 °C. Thus it was proved that it is unnecessary to prolong the reaction time for two or three days as prescribed in literature.

PM

GAL, GY.

GAL, GY. Role of aluminum halogen alcoholates in the Meerwein-Ponndorf-Verley reduction. II. Reduction of α -bromoketones by a mixture of aluminum isopropylate and aluminum chloro-isopropylate. In English. p.163.

Vol. 8, no. 1/3. 1955

ACTA CHIMICA

SCIENCE

Budapest, Hungary

So: East European Accessions, Vol. 5, no. 5, May 1956

Gál, György

✓ Synthesis and determination of tropinone. György.

Gál, István Shonoyi, and Géza Tokár (United Pharm. Nutrient Factory, Budapest). *Magyar Kém. Folyóirat* 61, 74-7 (1965).—Tropinone was detd. in the reaction mixt. as follows. To a sample adjusted to pH 2 and to another adjusted to pH 6, resp., was added a 1% aq. soln. of Reinecke salt in 20-30% excess (the supernatant should remain durably pink), the liquid made up with distd. water to 50 ml., allowed to stand 1 hr., filtered (glass filter 103), and the filter cake washed with distd. water, then twice with 5 ml. 90% EtOH, dried 30 min. at 105°, and weighed. The tropinone reineckate, m. 181-2°, contained N 9.09, Cr 11.18%. In synthesizing tropinone, a reaction mixt. contg. 4.3 g. (CH₃CHO)₂ was treated with 11.7 g. CO(CH₂CO₂H)₂, the mixt. adjusted with K₂CO₃ to pH 6, 60 ml. of 12% neutral soln. of Na citrate and 5.4 g. MeNH₂.HCl added, and the soln. made up with distd. water to 150 ml. and allowed to stand for periods varying from 1 to 50 hrs. gave 80% tropinone. Also in *Acta Chem. Acad. Sci. Hung.* 6, No. 3-4, 365-71 (1955). István Kinyó

GAL G.

✓ 34. Determination of penicillin by a new chemical method — G. Tokár, I. Simonyi, G. Gál.
(*Magyar Kémiai Folyóirat* — Vol. 61, 1955, No. 5, pp. 146—149, 3 tabs.) CA

It was found that Pehling's reagent is reduced by penicillin and simultaneously ammonia is set free. From the two existing nitrogens that of the acid amide group in the penicillin molecule is transformed quantitatively into ammonia and by its acidimetric titration the reaction is suitable for the convenient and rapid determination of penicillin. The method was found useful for the determination of dibenzyl-ethylenediamine-dipenicillin salt and other penicillin combinations. The determination is conveniently carried out in a Schulek-Vastagh type apparatus constructed for the distillation of ammonia. To a sample weighed with analytical precision the following reagents are added in a 1:1 ratio: 0.01 g $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ dissolved in 1000 ml of distilled water, 34 g NaOH and 100 g $\text{KNaC}_2\text{H}_3\text{O}_6$. Then the mixture is boiled. The ammonia distilling off is adsorbed into an acid solution of known concentration. Excess acid is back-titrated thereby establishing the quantity of liberated ammonia which is equivalent to the penicillin present in the sample. The method yields adequate analysis data with either 0.1 N or 0.01 N solutions.

(2)

GAL, GY

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The role of aluminum halogen alcoholates in the Meerwein-Ponndorf-Verley reduction, T. Gy. (34) G. Tokár, L. Altonyi. Magyar Kémiai Folyóirat, Vol. 61, 1958, No. 9, pp. 268-274, 5 figs., 8 tabs.

Chem

Partial or total reductive dehalogenation occurs if the preparation of aluminum alcoholates is conducted in the presence of alkyl halides, and dialkoxo aluminum halides of the general formula $X_2Al(OR)_2$ are produced by the action of the liberated halogen acids. For instance by refluxing 1 mol of aluminum in the presence of mercuric chloride in isopropyl alcohol with 0.55 mol of carbon tetrachloride aluminum chloroisopropylate $[Cl_2Al(OC_3H_7)_2]$ was obtained in yields of 72 to 75%, which separated from the reaction mixture as a crystalline precipitate. It was found that the velocity of the Meerwein-Ponndorf type reduction of carboxyl compounds was generally appreciably increased when the aluminum isopropylate employed contained 20 to 35% of aluminum isopropylate. It proved to be especially advantageous to conduct the reduction with aluminum chloroisopropylate-aluminum isopropylate mixtures if upon prolonged heating with aluminum isopropylate the compound yielded unwanted by-products. The reactions took place at lower temperatures by using the mixed agent consequently the quantity of by-products diminished. The reduction of different halogen ketones, acylamino hydroxyketones and unsaturated ketones was realized successfully with excellent yields by employing mixtures of aluminum isopropylate and aluminum chloroisopropylate.

PM

GAL, GY.; TOKAR, G.; SIMONYI, I.

GAL, GY.; TOKAR, G.; SIMONYI, I. Effect of aluminum halogen alcoholates in the Meerwein-Ponndorf-Verley reduction. I. Changes in ~~rates~~ of reaction and in equilibrium values at reductions carried out in the presence of aluminum halogen alcoholates. In English. p. 421.

Vol. 7, no. 3/4, 1955
ACTA CHIMICA
SCIENCE
HUNGARY

So: East European Accessions, Vol. 5, No. 9, Sept. 1956

GAL, GY.; STONYI, L; TOKAR, G.

Role of aluminumhalogen alcoholates in Meerwein-Ponndorf-Verley reductions. II. Reduction of γ -bromoketones with a mixture of aluminum isopropyl and aluminum chlorisopropyl. III. Determination of the oxo group by modified Meerwein reduction. p. 362. Vol 61, No. 11, Nov. 1955. ACTA ZOOLOGICA, ELET ES TUDOMANY, and MAGYAR KEMIAI FOLYOIRAT. Budapest, Hungary.

So: Eastern European Accession. Vol. 5, no. 4, April 1956

BA/ Ec.

4

Determination of the halogen content of organic compounds. (L. Simonyi, G. Tokar, and Gy. Balazs, *Magyar Kémiai Folyóirat* 69, 67-8 (1954); *Chem. Tech. Abstr.* 7, No. 1, 7 (1955)). The process is suitable for the simple and rapid detn. of the halogen contents of org. compounds. The method is based on the dehalogenation process effected by reduction. The detn. was carried out in acid or basic media, depending on the nature of the compound, with nascent H in the presence of H-transporting catalysts. Raney Ni catalyst with a 3-3% Al content was found convenient in basic solns. In acid media granulated Zn and H_2SO_4 were used to produce H, and Pd charcoal was used as a catalyst. After the dehalogenation process was completed (about 30-60 min.), the halogen ions set free in the soln. were detd. by the Volhard method. The compounds examd. (contg. H instead of the halogen atoms, and the reducible groups reduced) could be recovered in most cases from this soln. for further analyses. Error of the method is 0.5%.

Sm 008

COL, C

Chlor

Use of aluminum alcoholates in the Meerwein-Ponndorf-Verley reduction. III. Determination of the keto group by a modified procedure. I. Simonyi, G. Tokár and G. Gál (*Kém. közl.*, 1956, 18, 217-228).—The reaction of CO₂ compounds with Al(OPr)₃ (I) giving acetone goes more rapidly in presence of Al chloroisopropoxide (II). Use of a 8-10% solution of I and 4-5% of II both in PrOH is described as a quant. method. After refluxing the substance with this reagent in solution in benzene-alcohol (15-60 min.), the acetone formed is distilled off into 1% aq. NH₄OH/HCl. Excess of the latter is determined by titration to phenolphthalein after neutralizing with HCl to a bluish green colour with bromophenol blue. Results given for 18 complex ketones and aldehydes are correct within 1-2% of theory. A. F. DENSHAM.

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GAL György

✓12277* (Hungarian.) The Role of Aluminum-Halide Alcohates in the Meerwein-Ponndorf-Verley Reduction. Aluminum-halogénalkoholátok szerepe a Meerwein-Ponndorf-Verley redukciónál. IV. György Gál and Istvánné Krasznai. Magyar Kémiai Folyóirat, v. 62, no. 5, May 1956, p. 155-158. Reduction of aldehydes and unsaturated ketones with a mixture of aluminum-isopropylate and aluminum-chloro-isopropylate.

chem 2
PM 8003

GAL, GYORGY

Chem V 12842* (Hungarian.) The Role of Aluminum Halide Al-
 colates in the Meerwein-Ponndorf-Verley Reduction. Alum-
 inium-halogenalkoholátok szerepe a Meerwein-Ponndorf-
 Verley-redukcióban. V. Reduction of α -Oxyketones.
 α -Oxidoketonok redukciója. György Gal, István József
 and István Keszegi. Magyar Kémiai Folyóirat, vi 63, Jan.
 1957, p. 5-11.

EM 1957

GAL, Gyorgy, dr.,; NEMETH, Andras, dr.,; PINTER, Imre, dr.

Hemodialysis in the therapy of severe barbiturate poisoning.
Orv. hetil. 97 no.21:582 20 May 56.

1. A Szegedi Orvost. Egy. I. sz. Seb. Klin. (igaz. Jaki Gyula dr.
egyet. tanar) es Korelettani Intex. (igaz.: Karady Istvan dr.
egyet. tanar) kozl.

(BARBITURATES, pois.

ther., hemodialysis in severe pois. (Hun))

(DIALYSIS

hemodialysis, ther., severe barbiturate pois. (Hun))

(KIDNEYS, artif.

same)

(POISONING

barbiturates, ther., hemodialysis in severe pois. (Hun))

GAL, GYORGY

Hungary/Organic Chemistry - Synthetic Organic Chemistry, E-2

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61476

Author: Gal, Gyorgy; Simonyi, Istan; Tokar, Geza

Institution: None

Title: Role of Aluminum Haloalcoholates in the Meerwein-Ponndorf-Verley Reduction. II. Reduction of α -Bromoketones by Means of a Mixture of Aluminum Isopropylate and Aluminum Chlorisopropylate

Original

Periodical: Aluminium-halogenalkoholatok szerepe a Meerwein-Ponndorf-Verley redukional. II. α -Bromketonok redukcioja aluminium izopropilat es aluminium-klorizopropolat keverekevel, Magyar. kem. folyoirat, 1955, 61, No 11, 362-367; Hungarian; German resumé; Acta chim. acad. sci. hung., 1955, 8, No 1-3, 63-169; English; Russian and German resúmes

Abstract: Reduction of α -secondary bromoketones and α -bromisobutyrophenone (I) according to Meerwein-Ponndorf, using the mixture (iso-C₃H₇O)₃Al (II) + (iso-C₃H₇O)₂AlX (III = Br, IV = Cl) gives a

Card 1/3

Hungary/Organic Chemistry - Synthetic Organic Chemistry, E-2

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61476

Abstract: good yield of corresponding bromohydrines. Formation of $C_6H_5CHBrC(CH_3)=CH_2$ and $C_6H_5CH=C(CH_3)CH_2Br$ in the course of the reduction of I with II (Stevens, P. G., et al, J. Amer. Chem. Soc., 1940, 62, 1424) is due to intermediate formation of $C_6H_5CHOHCHBr(CH_3)_2$ (V). To α -bromopropiophenone (VI) (from propiophenone and Br_2 , 0.3 mol each in 200 ml absolute C_6H_6) are added within 10-15 minutes 0.9 mol II in 400 ml absolute C_6H_6 , and let stand at $\sim 20^\circ$. II reacts partially with HBr contained in the solution and yields III; molar ratio II:III 0.66:0.24. After 24 hours (degree of conversion 92.5%) poured into a mixture of 1 kg ice 100 ml concentrated H_2SO_4 , yield of $C_6H_5CHOHCHBrC_2H_5$ (VII) 84.1%, BP 102-104°/5 mm. On reduction (48 hours) of α -bromopropiophenone (0.3 mol) with mixture of 0.3 mol II and 0.1 mol IV yield of VII is 81.7%, to a solution of 0.6 mol II and 0.2 mol IV in 600 ml absolute C_6H_6 are added with cooling within 15-20 minutes 0.5 mol 2-bromocyclo-hexanone, let stand for 24 hours, yield of 2-bromocyclohexanol 73%, BP 85-87°/10 mm. High yields and absence of products containing no Br (see Stevens, et al, loc. cit.) are due to low temperatures of the reaction (0-20°) possibly due to the

Card 2/3

Hungary/Organic Chemistry - Synthetic Organic Chemistry, E-2

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 61476

Abstract: accelerating action of III or IV. To a solution of 1 mol II and 0.4 mol IV in 1.2 l absolute C_6H_6 are added dropwise (30 minutes, $0-3^{\circ}$) 1 mol I let stand for 24 hours in the cold, yield of V 98.5% $n_D^{25} 1.5497$. On distillation (5 mm) V loses water and is converted to $C_6H_5CHC(CH_3)CH_2Br$. Acetyl derivative of V (from 22.9 g V and 50 ml CH_3COCl , boiled for 2 hours, yield 17.2 g) BP 117-119 $^{\circ}$ /5 mm, MP 55-56 $^{\circ}$ (from ethyl acetate + petroleum ether). Velocity of reduction of I and isobutyrophenone with mixture of II and IV (1:2) is about equal. Communication I, see Referat Zhur - Khimiya, 1956, 57915.

Card 3/3

GAL, C.

chem ✓ 1586. The role of aluminum halogen alcoholates
in the Meerwein-Ponndorf-Verley reduction. III.
Determination of the α -o group by a modified
Meerwein reduction. I. Simon, G. Tokar and
G. Gal (United Pharm. and Nutrition Factory,
Budapest). *Acta Chim. Acad. Sci. Hung.* 1953,
10 (1-3), 217-226 (in English).—This paper has
already been published in Hungarian, in *Magyar
Kém. Foly.*, 1953, 61, 267. *Cf. Anal. Abstr.*, 1956,
3, 1757.
A. R. DRESSMAN

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GAL, Gy

HUNGARY / Organic Chemistry. Synthetic Organic Chemistry.

G-2

Abstr Jour : RZhKhim., No 10, 1958, No 32412

Author : Gyorgy Gal, Istvan Simonyi, Goza Tokar.

Inst : Not given

Title : Corrections to the Paper of Gal, Simonyi and Tokar "Part of Aluminum Halogenalcoholates at the Reduction by Meerwein-Ponndorf-Worley. II. Reduction of α -Bromoketones with Mixed Aluminum Isopropylate and Aluminum Chloroisopropylate".

Orig Pub : Magyar kem. folyoirat, 1956, 62, No. 3, 112.

Abstract : To RZhKhim, 1956, 61476

Card 1/1

GAL, GYBRY

Distr: 4E2c(3)/11E3d

The role of aluminum haloalkoxides in Meerwein-Ponndorf-Verley reductions. IV. Reduction of aldehydes and unsaturated ketones with a mixture of aluminum isopropylate and aluminum chloroisopropylate. 7. G. G. G. and M. A. K. (Krasnodar Univ. Chem. Lab., Krasnodar, USSR). *Magyar Kém. Folyóirat* 62, 185-9 (1964); C.A. 52, 170f. The Meerwein reduction is modified by using a combination (2/3:1/3) of Al isopropylate and Al chloroisopropylate (C.A. 52, 808f) at low temps. (approx. 25-40°). The modification reduces side reactions (e.g. Tishchenko reaction during reduction of aldehydes).

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1. List

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GAL, Gy.: FOLDESI, I.; KRASZNAI, I.

The role of aluminum-halogen-alcoholates in the Meerwein-Ponndorf-Verley reduction. V. Reduction of α -Oximinoketones. p. 5. (Magyar Kemiai Folyoirat, Vol. 63, No. 1, Jan 1957, Budapest, Hungary)

SO: Monthly List of East European Accessions (ZEAL) LC, Vol. 6, No. 8, Aug 1957. Uncl.

GAL, GY KRASZNAI, I.

Reaction of aluminum chloride isopropylate with sodium borohydride; a preliminary communication. p. 92.

(Magyar Kemiai Folyoirat. Vol. 63, no. 2/3, Feb./Mar. 1957. Budapest, Hungary)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 10, October 1957. Uncl.

Gal, G.
HUNGARY / Organic Chemistry. Synthetic Organic Chemistry. G

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 61016.

Author : Gyorgy Gal, Istvanne Krasznai.

Inst :

Title : Selective O-Disacylation of N,O-Diacyl Compounds.

Orig Pub: Magyar kem. folyoirat, 1957, 63, No 6-7, 176-179.

Abstract: An addition of 20 to 30% of $(\text{iso-C}_3\text{H}_7\text{O})_2\text{AlCl}$ to $(\text{iso-C}_3\text{H}_7\text{O})_3\text{Al}$ results in a reagent, which accelerates the reesterification of carboxylic acids with the formation of isopropyl esters. Only O-disacylation with 75 to 95% yield takes place at the action of that reagent on N,O-diacyl derivatives mixed with $\text{C}_6\text{H}_6\text{-iso-C}_3\text{H}_7\text{OH}$, which has been confirmed by many examples, where the O-acyl and the N-acyl groups are in the compounds of the

Card 1/2

Egyesult Gyorgy Gal - Istvanne Krasznai
39

HUNGARY / Organic Chemistry. Synthetic Organic Chemistry. G

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 61016.

Abstract: fatty or the aromatic series, or the O-acyl group is in the fatty radical, and the N-acyl group is in the aromatic radical. O-acetyl, benzoyl and tozyl compounds are re-esterized easily, and 4-nitrobenzoyl compounds are re-esterized with difficulty. Methyl-(4-tozylaminophenyl)-carbinol, melting point 112° (from benzene-petroleum ether) was prepared by the reduction of $\text{n-CH}_3\text{C}_6\text{H}_4\text{SO}_2\text{NHC}_6\text{H}_4\text{COCH}_3$ with Al isopropylate and converted into tozylate, melting point 117° (from petroleum ether) by the reaction with $\text{CH}_3\text{C}_6\text{H}_4\text{SO}_2\text{Cl}$ in the presence of pyridine.

Card 2/2

Gal, G.

HUNGARY / Organic Chemistry. Synthetic Organic Chemistry.

G

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 61017.

Abstract: in C_6H_6 for the preparation of I. The rate and the temperature of the dissociation of I (40 to 230° , 1 hour) depend on the R and are similar to the thermal dissociation of $ClB(OR)_2$. The main dissociation products are RCl and corresponding olefins, alcohol and ester. The rate of reduction according to Meerwein in the presence of $ClAl(OC_3H_7-iso)_2$ (Ia) rises while its amount in the mixture with III does not exceed 35%. The reduction rate decreases noticeably at the concentration of Ia above 70%. These dissociation processes are explained by the formation of the

Card 2/3

HUNGARY / Organic Chemistry. Synthetic Organic Chemistry.

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APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000614020002-6"

Abs Jour: Ref Zhur-Khimiya, No 18, 1958, 61017.

Abstract: intermediate (less stable) $R'R''CHOAl(Cl)OC_3H_7-iso$.

Card 3/3

30. Selective O-deacylation of N,O-diacyl compounds by using a mixture of aluminium isopropylate and chloro-aluminium isopropylate.* (In English) O.Y. Gál, E. Krassnói. *Acta Chimica Academiae Scientiarum Hungaricae*, Vol. 17, 1958, No. 2, pp. 171-170, 1 fig., 3 tabs.

It was found that the rate of over-esterification reactions catalyzed by aluminium isopropylate can be raised if 20-30% of the aluminium isopropylate is substituted by chloro-aluminium isopropylate. N,O-diacyl compounds, when heated in a solution of abs. isopropyl alcohol or in benzene with a mixture of aluminium isopropylate and chloro-aluminium isopropylate, can be selectively O-deacylated without the cleavage of the N-acyl bond. This type of selective O-deacylation can be carried out in fair yields with both aliphatic and aromatic compounds. While O-acetyl, O-benzoyl and O-tosyl compounds proved to be readily processable, 4-nitrobenzoyl esters reacted only slightly. When chloro-aluminium isopropylate was reacted with carboxylates, in addition to overesterification, a decomposition of various forms of chloro-aluminium isopropylate as well as of the new haloid aluminium alcoholate formed during the overesterification also took place, the direction of which was determined by the structure of the latter products.

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Gal Gy

HUNGARY/Analytical Chemistry. Analysis of Organic Substances.

E

Abs Jour: Ref Zhur-Khim, No 9, 1959, 31092.

Author: Tokar, G., Gal Gy., Samonyi, I.

Inst. : Hungarian Academy of Sciences.

Title : New Chemical Methods Applicable in Organic Analysis
and Their Significance in Preparative Work.

Orig Pub: Acta chim. Acad. scient. Hung. 1958, 15, No 4,
375-384.

Abstract: A quick and simple method for the determination of organically bonded halogens (H) was developed. The method is based on the quantitative exchange of an active catalyst of halogen atoms with hydrogen at the moment of liberation. The weighed portion of the substance being analyzed is dissolved in water, C_2H_5OH or in

Card : 1/3

HUNGARY/Analytical Chemistry. Analysis of Organic Substances.

E

Abs Jour: Ref Zhur-Khim., No 9, 1959, 31092.

C_3H_7OH , or in other solvents not containing H or their mixtures. In analysis in an alkaline medium the alkali concentration is fixed at the level of 1.2%. A small amount of Na catalyst containing 3-5% of Al is introduced and the whole is heated for 30-60 minutes. A reflux condenser is used. The not very strongly bonded — separates in 15-20 minutes. The solution is then filtered free from the catalyst, acidified with HNO_3 and ion H is determined according to Volhard's method. The dehalogenation of organic substances that become very resinous or acquire dark coloration in an alkaline medium is performed in an acid solution using bone charcoal as catalyst and granulated Zn for the liberation of H_2 . The method is applicable when the concentration of substances undergoing analysis is

Card : 2/3

107

HUNGARY / Organic Chemistry. Synthesis.

G

Abs Jour: ref Zhur-Khimiya, No 7, 1959, 23331

Author : Gal, Gy.; Foldesi, I.; Krasnai, E.
Inst : Academy of Sciences, Hungary
Title : Role of Halogen Aluminium Alcoholates in the
Meerwein-Ponndorf-Verley Reduction. V. Reduction
of α -Oximinoketones.

Orig Pub: Acta chim. Acad. scient. hung., 1958, 16, No 3,
279-290.

Abstract: See RZhKhim, 1958, 39541.

Card 1/1

G-5

HUNGARY / Organic Chemistry. Synthesis.

G-2

Abs Jour: Ref Zhur-Khimiya, No 7, 1959, 23452

Author : Gal, Gy.; Krasznai, E.

Inst : Academy of Sciences, Hungary

Title : Stability of Halogen Aluminum Alcoholates.

Orig Pub: Acta chim. Acad. scient. hung., 1958, 16, No 4,
369-377.

Abstract: The thermal dissociation of chloroaluminum alcoholates (ChAA) - catalysts in the reduction of oxo compounds with aluminum isopropylate (I) (by Meerwein's method) was studied. ChAAs of the general formula ClAl(OR)_2 dissociate at 150-200° depending on the nature of the radical R. The type of the thermal dissociation is qualitatively the same as that of analogously constructed halogen esters of boric acid: a) $3\text{ClAl(OR)}_2 \rightarrow \text{Al}_2\text{O}_3 + \text{Al(OR)}_3$

Card 1/6

G-21

HUNGARY / Organic Chemistry.. Synthesis.

G-2

Abs Jour: Ref Zhur-Khimiya, No 7, 1959, 23452

Abstract: + 3RCl; b) $3\text{ClAl(OR)}_2 \rightarrow \text{Al}_2\text{O}_3 + \text{Al(OR)}_3 + 3 \text{ olefins}$
 + 3RCl; c) $2\text{ClAl(OR)}_2 \rightarrow \text{Al}_2\text{O}_3 + \text{Cl}_2\text{AlOR}$; d) $2\text{Cl}_2\text{AlOR}$
 $\rightarrow \text{AlCl}_3 + \text{ClAl(OR)}_2$. Besides, the reaction
 $\text{Al(OR)}_3 + \text{HCl} \rightarrow \text{ClAl(OR)}_2 + \text{ROH}$ takes place. In
 the presence of Lewis's acids (0.05-1% of FeCl_3
 or AlCl_3), the temperature of ChAA dissociation
 decreases very much. On the contrary, Lewis's
 bases stabilize the ChAAs. The amounts of RCl and
 olefin formed in accordance with the equations a
 and b are 70-85 and 3-8% respectively; however, in
 the dissociation of chlorine aluminum isopropylate
 (II), 28% of propylene and only 55% of iso- $\text{C}_3\text{H}_7\text{Cl}$
 are formed. The rate of Meerwein's reaction in
 the presence of II rises while the amount of II
 does not exceed 35% of the amount of I; the rate

Card 2/6

HUNGARY / Organic Chemistry, Synthesis

"APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000614020002-6"

Abs Jour: Ref Zhur-Khimiya, No 7, 1959, 23452

Abstract: of reduction does not change at larger amounts of
 II (35-70%); on further increase of the amount of
 II, reactions of another direction are observed,
 even under conditions under which II is still
 stable. The mechanism in the catalytic action of
 II in Meerwien's reaction is discussed: first, a
 complex is formed from the oxo compound $\text{R}'\text{R}''\text{CO}$ and
 II, this complex loses a molecule of acetone at a
 high enough temperature and converts into a "mixed"
 ClAA of the formula $\text{R}'\text{R}''\text{CHOAl-(Cl)OCH(CH}_3)_2$,
 which is less stable thermally than the ordinary
 ClAA. The interaction between the "mixed" ClAA
 and I results in the normal product of reduction
 under the condition that the amount of the I present
 does not exceed the amount of II. Under different
 conditions, the "mixed" ClAA causes the process of

Card 3/6

G-22

GAL, G.

HUNGARY/Organic Chemistry. Organic Synthesis.

G

Abs Jour: Ref Zhur-Khin., NO 11, 1959, 38584.

Author : GAL, G. and Krasznai, E.

Inst : Hungarian Academy of Sciences.

Title : The Selective O-Deacylation of N,O-Diacyl Compounds
with a Mixture of Aluminumisopropylate and Chloroalumi-
numisopropylate.

Orig Pub: Acta Chin Acad Sci Hung, 17, No 2, 171-179 (1958)
(in English with German and Russian summaries)

Abstract: The rate of the transesterification reactions cata-
lyzed by $\text{Al}(\text{OC}_3\text{H}_7\text{-iso})_3$ (I) can be increased
by substituting 20-30% of the I used (used in a 3-4-
fold excess over the stoichiometric amount of I) by
 $\text{ClAl}(\text{OC}_3\text{H}_7\text{-iso})_2$ (II). N,O-diacyl derivatives can

Card : 1/4

HUNGARY/Organic Chemistry. Organic Synthesis.

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Abs Jour: Ref Zhur-Khim., No 11, 1959, 38584.

be O-deacylated without danger of cleavage of the N-bond by using a mixture of I and II. Acetyl, benzoyl, and tosyl derivatives react readily; 4-nitrobenzoyl derivatives react to a very insignificant degree. During the reaction a partial decomposition of II may take place with the formation of iso-C₃H₇Cl and propylene. When phenyl acetate is used, o-hydroxyacetophenone has also been isolated. A solution of 0.1 mol of the diacetyl derivative in 60-100 ml abs C₆H₆, CH₂CH(OH)CH₃ (III), ClCH₂CH₂Cl, CHCl₃, or a mixture of these solvents is treated with a solution of 0.1-0.15 mol I in 60 ml C₆H₆ and 20 ml of a 1 M benzene solution of II, the solution is refluxed for 1-3 hrs, after which it is evaporated. The II, O-diacetyl derivatives, solvents used (ratio in parenthesis),

Card : 2/4

G-14

HUNGARY/Organic Chemistry. Organic Synthesis.

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Abs Jour: Ref Zhur-Khin., No 11, 1959, 38584.

reaction time in min, and the yield of the corresponding N-acylamino alcohol in % are listed below in that order: N-benzoyl- β -acetoxy- β -phenylethylamine, C_6H_6 , III (1 : 1), 25, 83; N, O-dibenzoyl-DL-norpseudoephedrine, C_6H_6 , III (2 : 1), 25, 92; 3-benzamidophenylbenzoate, C_6H_6 , III (2 : 1), 30, 98; 4-acetamidophenylacetate, C_6H_6 , III (2 : 1), 25, 93; 4-benzamidophenylbenzoate, C_6H_6 , III (2 : 1), 40, 95; 4-benzamidophenylacetate, C_6H_6 , III (2 : 1), 35, 96; 2-acetamidobenzoylacetate, C_6H_6 , 25, 78; 2-acetamidobenzylbenzoate, III, $CHCl_3$ (1 : 1), 30, 83; 2-benzamidobenzylbenzoate, III, 35, 75; 2-benzamido-benzylacetate, C_6H_6 , III (2 : 1), 25, 78, mp 95°; tosylate (IV) of methyl-(4-tosylaminophenyl)-carbinol (V), C_6H_6 , III

Card : 3/4

Distr: 4E20(j)/4E3d

The role of Aluminum haloalcoholates in the Meerwein-Ponndorf-Verley reduction. V. Reduction of α -oximino ketones. György Gál, István Foldesi, and Mrs. István Krasznai (Egyesült Gyógyászati Kutatók Intéze, Budapest). *Magyar Kém. Folyóirat* 63, 5-11 (1958); cf. C.A. 52, 10372d. — A molar soln. of Al chloro- or bromoisopropylate was prepd. by passing HCl or HBr (1 mole) through 204 g. of (iso-PrO)₃Al (I) in C₆H₆ or in PhMe with cooling and stirring. After removal of the solvent and the iso-PrOH formed, the residue was dild. to 1 l. Various α - and β -benzil monoxime derivs. were reduced by (a) 0.2 moles I only for 0.1 mole of the oxime, (b) a mixt. of 0.15 mole I and 0.05 mole (iso-PrO)₃AlCl (II), and (c) a boiling mixt. of 0.5 mole I in 1:1 C₆H₆ and 150 ml. M soln. of II in C₆H₆, to which a M soln. in C₆H₆ of the substance to be reduced was added slowly (0.3-0.5 mole in 1-5 hrs.) while C₆H₆ was distd. from the mixt. in the same amt. as added. The solvent was removed from the mixt. and the residue left overnight when the excess I and the Al complex formed decompd. by the air moisture. The product was four times boiled for 30 min. with five times its wt. of 90% EtOH, the combined exts. filtered and evapd., and the residue purified by crystn. or distn. Reduction of α - and β -benzilmonoxime: O-Me ether gave honeylike substances. The α -isomer gave with H₂Cl in pyridine α -benzoin oxime: O-Me ether benzoate, m. 89°. Diacetylmonoxime reduced by method c gave 58% acetoin oxime. α -Oximinoacetophenone reduced by method b gave 84% mandelic aldehyde oxime, m. 89°. Also by method b, α -oximinopropiophenone gave 90% phenylacetylcarbinol oxime. α -Oximinoisobutyrophenone gave 76% phenylpropionylcarbinol oxime and α -oximinovalerophenone gave 82% phenylvalerylcarbinol oxime. The

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György Gál, István Foldesi, Mrs. István Krácznai
crude reaction mixture of α -oximinopropiophenone reduced
by method *b* on addn. (with cooling) of 20% H_2SO_4 and
steam distn. gave 87% phenylacetylcarbinol. 3-Oximinopropiophenone
(III) reduced by method *c* gave 80%
2,4-dihydroxy-3-pentanone oxime, m. 120° (EtOAc). III
(32.4) in 100 ml. H_2O and 64.7 g. of $CoCl_2 \cdot 6H_2O$ in 100 ml.

H_2O mixed and treated with 70 g. $AcONa \cdot 3H_2O$ in 150 ml.
 H_2O after several hrs. gave 27.3 g. Co chelate of III as a red-
dish brown ppt., m. 160°, which is reduced by method
c but much more slowly than III. Bz_2CH_2 (87.2 g.) in
350 ml. $AcOH$ with 21.5 g. $NaNO_2$ in 35 ml. H_2O at 15°
stirred 2.5 hrs. gave 72 g. 2-oximino-1,3-diphenyl-1,3-
propanedione which was reduced by method *c* to 87%
2-oximino-1,3-diphenyl-1,3-propanediol, m. 151 (AcOEt-petr.
ether). α -Oximinopropiophenone was reduced by method *c* to
87.5%. *Et* α -oximino- β -oxybutyrate, b. 122°. Oximino ket-
ones, in which the syn and anti forms can not be isolated,
can be reduced uniformly to α -hydroxy aldoximes or α -
hydroxy ketoximes; with oximino ketones in which the two
isomers can be sep'd., the two isomers show differing behav-
iour in the reduction. The syn-acyl isomer can form a
complex with I, and carbonyl groups taking part in the
chelation cannot be reduced by I. By procedure *c* the
formation of a chelate is kept to a min. so that even syn-
acyl compds. can be reduced.

Saul Patm

7
2 May
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off

NAGY, Gyorgy, dr.; GAL, Gyula, dr.

Pathological data on essential pulmonary hypertension. Magyar.
belorv. arch 13 no. 5: 142-147 • '60.

1. A Fovarosi Istvan Korhaz (Igazgato: Katona Istvan dr.) Korbonctani
Osztalyanak (Foorvos: Radnai Bela dr.) kozlemenye.
(HYPERTENSION pathol)
(PULMONARY ARTERY pathol)

VARGA, Laszlo, dr.; GAL, Gyula, dr.; CSAKANY, Gyorgy, dr.

X-ray findings on degenerative changes in the sterno-costal joint.
Orv. hetil. 103 no.25:1165-1167 24 Je '62.

1. Orszagos Kardiologiai Intezet, Rontgenosztaly es Fovarosi Istvan
Korhaz, Prosectura.

(RIBS dis)

HUNGARY

GAL, Gyula, LESZKOVSKY, Gyorgy, LENDVAI, Jenő; Chinoin Pharmaceutical Factory, Pharmacological Laboratory (Chinoin Gyogyszergyár, Farmakológiai Laboratórium), Budapest.

"Quantitative Evaluation of the Morphological Changes Obtained in Experimental Necrosis of the Cardiac Muscle."

Budapest, Kiserletes Orvostudomány, Vol XVIII, No 4, Aug 66, pages 398-402.

Abstract: [Authors' Hungarian summary] A quantitative morphological method was used to study the cardiac necrosis of rats produced with isoproterenol. By means of a mathematical-statistical comparison of the severity index numbers, obtained with a procedure based on the counting of the morphological building blocks of the changes, it was concluded that increasing doses of isoproterenol will lead to a development of significantly more severe necroses. The changes are made less severe by amine oxidase inhibitors and more severe by reserpine and guanetidine. The method could be useful for the quantitative evaluation of morphological changes resulting from various pharmacological experiments. All 26 references are Western. [Manuscript received 9 Aug 65.]

HUNG

2229. Determination of cocoa husk in cocoa powder. Hona Gál (Élelmiszeri Ismer., 1953, 7 (10), 308-309; *Heperrat* 1953, 24, Khim., 1954, Abstr. No. 43,754).—A sample of cocoa powder (3 g) is extracted with 30 ml of ether; 75 ml of 70 per cent. methanol and 5 ml of conc. HNO₃ are added to the residue and, after being heated for 30 min., the mixture is filtered. The residue is washed with hot water, ground and mixed with 16 ml of water and 0.5 ml of a 1 per cent. soln. of methylene blue. A drop of the suspension is examined microscopically in a Bueker chamber (magnification $\times 300$) and the number of spirals (scleroidal cells) and total visible particles are counted. The percentage of cocoa husk = $a/0.32b$, where a is the total number of spirals, b is the total number of visible particles and 0.32 is a factor established for four different kinds of ground cocoa beans. The method is applicable to cocoa powder of any degree of fineness and also when the cocoa-husk content is less than one per cent. E. HAYES

GAL, I.

New methods in analytic chemistry. p. 1433. Vol. 9,
No. 9, 1954. TEHNIKA. Beograd, Yugoslavia.

SOURCE: East European Accessions List, (EEAL) Library
of Congress, Vol. 5, No. 8, August, 1956.

GAL, ILONA

ND ✓ Preparation of products of antibiotic effect from the peptide fraction of the partial hydrolyzate of keratin. Ilona GAL (Chem. Inst., Budapest). *Magyar Kém. Polvértől* 61: 45-47 (1965).—Peptide fractions, obtained by treating the partial hydrolyzates of hen feathers, wool wastes, and swine hoofs with 1-2% solns. of Na_2S , were isolated and heated in 2-naphthol 3 hrs. at 135-143°. After removing 2-naphthol with ether, the 5% aq. solns. of peptides showed an antibacterial activity ($1/4$ - $1/32$ times that of penicillin) against *Staphylococcus aureus*. István Fimány

GAL, I.

Research on utilization of swine hoofs. p. 314. Vol 9, no. 10, Oct. 1955. ELEI-
MEZESI IPAR. Budapest, Hungary.

So; Eastern European Accession. Vol 5, no. 4, April 1956

Gal, Elona

Med

The formation of antibacterial substances from amino acids by heating with β -naphthol. Elona Gal (Stud. Inst. Chem., Budapest). *Hoppe-Seyler's Z. physiol. Chem.* 300, 72-5 (1956); cf. C.A. 51, 2933d. —Glycine, DL-alanine, DL-serine, DL-valine, DL-leucine, DL-isoleucine, DL-threonine, L-cysteine-HCl, cystine, L-methionine, L-aspartic acid, L-glutamic acid, L-arginine, DL-ornithine, lysine-HCl, histidine-HCl, DL-tryptophan, L-proline, DL-phenylalanine, L-tyrosine, and asparagine, betaine, urea, glycylglycine, humins, and standard melanoidin were heated with β -naphthol for 3 hrs. at 135–142°. Of the products obtained only the ones from glycylglycine, histidine, arginine, glycine, and cystine were active in a 5% buffered sole against *Staphylococcus aureus* and *Bacillus subtilis*. All products were inactive against *Escherichia coli*. The greatest activity was

shown by a yellow product formed to the extent of 2% in the case of glycine. This substance was active in dilution of 1:50,000 and could be sepd. by paper chromatography into a fluorescent, active substance and a non-fluorescent, inactive substance. Heating the amino acids and other compounds with anhyd. glycerol gave no activity except in the case of cysteine.

Serban N. Ilic

P-Ab, Iona

Antibiotically active substances from partial protein hydrolyzates. Iona Gál (Städt. Inst. Chem., Budapest). Hoppe-Seyler's Z. physiol. Chem. 303, 234-9 (1958).—Peptide fractions from partial hydrolysis of feathers, wool, casein, or ovalbumin were heated with β -naphthol at 135° for 3 hrs. After extr. with Et₂O to remove the β -naphthol, the peptide fractions were tested against bacteria for antibiotic activity. From the weakly active products a yellow substance was sepd. by paper chromatography and further resolved into basic, acidic, and neutral fractions by ion exchange. The acidic fraction was active. β -Naphthol derivs. of water-sol. humic acids are assumed to be the active substances. C. D. Johnston

GAL, Ilona; TOPERCZER, Johanna

Examination of the artificial radioactivity of some Hungarian foodstuffs. Magyar folyoir 66 no.11:436-439 N '60.

1. Budapest Fovaros Vegyeszeti es Elelmiszervizsgalo Intezete, es Orszagos Onkologiai Intezet, Budapest.

GAL, Imre

The way we should support the execution of the program of the Hungarian Federation for Physical Education and Sports. Munka 14 no. 2: 32-33 F '64.

1. Szakszervezeti Megyei Tanacs kulturalis bizottsaga vezetoje es Megyei TS elnokhelyettese.

GÁL I. Debreceni Tudományegyetem Belklinikaájának Közleménye. Nephelometriás eljárás a
 serumcholinesterase aktivitásának meghatározására Nephelometric method for determination
 of the activity of serum cholinesterase Magyar Belorvosi Archivum 1948, 1/4 (198-209)
 Graphs 10 Tables 3

The method is based on the fact that acetic acid, liberated by hydrolysis of acetyl-
 choline, causes aggregation of globulins which can be measured nephelometrically.
 As serum sometimes shows only a slight opalescence, an 'indicator' (e.g. milk) is
 required. A mixture is made of 0.3 ml. serum, 0.3 ml of a 1: 10 dilution of boiled
 milk, 1 ml. 0.01 N-acetylcholine and 2.7 ml. distilled water. A standard tube is
 prepared in the same way but instead of the acetylcholine it contains 0.5 ml. of
 0.01 N-acetic acid (corresponding to the amount liberated by 50% hydrolysis of the
 acetylcholine sample). The time taken for the development in the acetylcholine
 tube of an opalescence equal to that in the standard tube is the half-value period
 corresponding to the cholinesterase. The reciprocal of this figure is multiplied by
 1000 to express the cholinesterase activity of the serum. Half-value periods for the
 sera of normal and pathological individuals are given.

Ambrus - Zurich

S0: Physiology, Biochemistry & Pharmacology 2.¹ Jan.-June 1949

C.A.

116

Clinical aspects of cholinesterase activity of serum. Preliminary communication. Imre Gál and Lajos Végő (Tudományegyetem, Belklinikai, Debrecen, Hungary). *Magyar Belorvosok Arch.* 1, 210-23 (1948). - By the method published previously (C.A. 43, 6272b) the cholinesterase activity (I) of serums of 540 persons suffering from various diseases was detd. I of serum is not correlated with the sedimentation rate of blood cells, or with the no. of red blood corpuscles. Some parallelism was observed between I and the Takata test. I decreased in severe general diseases, in allergic disturbances, and with decrease of the albumin fraction. Increased activity was observed in sympathicotonic diseases. István Földi

GAL, I. 1948

"The Health Aspects of the Villages and Farms in the Reorganization Scheme of the Hungarian National Health Services."

Orvosok Lapja. Budapest, 1948 4/14(200-203)
Abst: Exc. Med. IV, Vol. 11, No. 3, p. 310

GAL, I.
(3532)

Medizinische Klinik and Stomatologis che Klinik der Universitat in Debrecen, Ungarn.
Uber Cholesterinesterase-Aktivitat im menschlichen Speichel On cholinesterase
activity of the human saliva. Zeitschrift fur Stomatologie 1948, 45/9 (411-414) Graphs 3
Human saliva has neither cholinesterase activity nor inhibitory action on this
enzyme.

Roche - Paris

So: Excerpta Medica, Vol. II, No 7, Sec. II, July 1949

GAI, I.;JAVOR, T.;KESZTYUS, L.;LAZAR, J.;NIKODEMUSZ, I.;SZILAGYI, T.;VEGH, L.

Effect of roentgen rays on diphtheria toxin. Acta physiol. hung. 2 no.
3-4:533-537 1951. (CLML 22:1)

1. Of the Pathophysiological Institute and of the First Medical Clinic,
Debrecen University.

GAL, I.; JAVOR, T.; KESZTYUS L.; LAZAR, J.; NIKODEMUSZ, K.; SZILAGYI, T.;
VEGH, L.

Effect of roentgen rays on diphtheria toxin. Kiserlates Orvostud.
3 no. 5:363-365 1951. (CLML 21:3)

1. Doctors except Javor and Lazar. 2. Institute of Pathology and
First Internal Clinic of Debrecen Medical University.

GAL, I.; VEGH, L.

Data on the mechanism of local pain sensation and local analgesia;
investigations on competitive ferment inhibition. Kiserletes orvo-
stud. 3 no.6:435-443 1951. (CIML 21:4)

1. Doctors. 2. First Internal Clinic, Debrecen Medical University.

GAL, I.

HANKISS, J.; GAL, I.; SAMU, I

Therapeutic trial in myotonia acquisita; a contribution to the
pharmacology of the priscoline. Klin. Med. 9 no.3:123-126 1 Mar 54.
(CJML 26:3)

1. Of the First Medical Clinic (Head--Prof. Bala Fernet, M.D.) of
Debrecen University.

VEGH, Lajos, dr.; GAL, Imre, dr.

Experimental studies on localization of thoracic transudates.
Orv. hetil. 97 no.23:620-630 3 June 56

1. A Debreceni Orvostudományi Egyetem I. sz. Klinikájának
(igazgató: Fernet Bela dr. egyet. tanár) közleménye.

(EXUDATES AND TRANSUDATES

transudates, pleural, localization in humans & rabbits
in various pathol. cond. (Hun))

(PLEURA

transudates, localization in humans & rabbits in
various pathol. cond. (Hun))

Gal, I.

✓ 3814. Preparation of antibiologically active substances from products of the partial hydrolysis of proteins. I. Gal Hoppe-Seyl. *Z. physiol. Chem.*, 1956, 303, 234—239 (Städ. Inst. f. Chem., Budapest, Hungary).—Peptide fractions obtained from a no. of proteins by partial hydrolysis were heated with β -naphthol. The products showed weak activity against *Staphylococcus aureus* and *Bacillus subtilis* but not *Escherichia coli*. (German) ✓
P. Haas

GAL, Imre, dr.

Cooperation in sanitary education. Nepegesszegugy 42 no.4:105-108
Ap '61.

1. Kozlemenye az Egeszsegugyi Miniszterium Egeszsegugyi Felvilagositasi
Kozpontjabol (igazgato: Matneki Janos dr.)

(HEALTH EDUCATION)

HARGITAI, Ferenc, dr.; GAL, Imre, dr.

Corticosteroid osteoporosis. Recurrent spontaneous compression fracture of the vertebra during corticosteroid therapy. Magy. Belorv. arch. 15 no.1:10-15 Fe '62.

1. Fovarosí Tetenyi u. korhaz (igazgato: Zellner Pa. dr.) I Belosztalya es Rontgenosztalya.

(ADRENAL CORTEX HORMONES toxicol) (OSTEOPOROSIS etiol)
(SPINE dis)

GAL, Imre

A porous cathode with low heating capacity and high current density.
Magy hir techn 12 no.5:192-194 0 '61.

1. Híradastechnikai Tudományos Egyesület tagja; Tavkozlesi Kutató
Intézet.

GAL, Imre, az orvostudományok kandidátusa, főorvos

Report on the 2d Congress on Hungarian Radiologists. Magyar Tud 71 no.11:719-720 N '64.

1. Tetenyi Street Hospital, Budapest.

FERKO, Sándor, Dr, ~~GAL, Imre, Dr~~, SZONYI, István, Dr; Capital City Council Tetenyi Ave Hospital, Obstetrical-Gynecological Ward (chief physician: FERKO, Sándor, Dr) and Radiology (chief physician: GAL, Imre, Dr) (Fovarosi Tanács Tetenyi Uti Kórház, Szülészeti-Nőgyógyászati Osztály és Röntgen Osztály), Budapest.

"Experiences With the Use of Cytostatic Compounds in Cases of Malignant Ovarian Tumors."

Budapest, Orvosi Hetilap, Vol 108, No 11, 12 Mar 67, pages 496-498.

Abstract: [Authors' Hungarian summary] Based on a literature survey and 7 cases observed, the experiences gained in the course of the cytostatic therapy of malignant ovarian tumors are reported. The therapeutic principles (surgery and irradiation) used by the authors are described in detail, followed by a discussion concerning the particular phase in which cytostatic treatment is administered as well as the method and amount used. According to the authors' views, cytostatic therapy should be used in every case. Although sufficient time has not yet elapsed for the final evaluation of the good results achieved in the cases discussed, it is the opinion of the authors that the therapeutic approach advocated by them is convincingly justified by the absence of symptoms and complaints in 5 patients, especially the incurable cases which had become suitable for radical surgery as well as those cases in which recurrences or metastases disappeared. 5 Hungarian, 36 Western references.

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D020/D105

9.4110 (1003, 1138, 1331)

AUTHOR: Gál, Imre, Member (see Association)

TITLE: L-cathode with low heating power and high current density

PERIODICAL: Magyar Híradástechnika, no. 5, 1961, 192 - 194

TEXT: The author deals with the design and advantages of L-cathodes in general and describes a new type of L-cathode with 1.8-w heating power at 6.3 v, developed at the Egyesült Izzó Fejlesztési Főosztálya (Development Department of United Incandescent). The final version of this cathode which is based on an L-cathode, 3 mm in diameter, with 3.6-w heating power developed prior to 1955, was worked out at the Távközlési Kutató Intézet (Telecommunication Research Institute). Main parts and dimensions of the new cathode with 2 - 10-ma carrying capacity and 100-500-ma/sq cm operating current density, are shown in Fig. 1a. The cylindrical shell and the partition plate separating the active material reservoir from the heater compartment are made from 0.15-mm-thick molybdenum sheet. The 0.3 - 0.4-mm-thick porous plug is pressed at 200 atm from tungsten powder with 3- μ particles sintered at 1,600°C in an H₂ atmosphere for 10 minutes.

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L-cathode with low heating power

The emitting surface is 1.8 mm in diameter. The active layer is made from a suspension of mixed Ba-Sr-Ca carbonates. The heat shielding cylinder shown in Fig. 1b is made from 0.15-mm-thick V2A material with 0.013 cal/cm·sec·degree heat conductivity. The shield with the three 0.5-mm-long and 0.3-mm-wide ribs on the lower end in direct contact with the cathode maintains the operating temperature $T_{\text{color}} = 920^{\circ}\text{C}$ at 1.8 w by saving about 30% of heating power. The cathode is heated by an aluminum oxide coated hairpin filament. The activation was carried out gradually by increasing the heater voltage 1 v per minute. At 11 v and $1,150^{\circ}\text{C}$, the cathode was glowed for 2 minutes, then the heater voltage reduced to 7.5 v for 10 minutes to achieve the required emission stability. Fig. 3 shows the efficiency of the cathode at 20-v anode voltage and Fig. 4 the operating current density curve at 920°C . There are 4 figures and 5 references: 1 Soviet-bloc and 4 non-Soviet-bloc. The references to the English-language publications read as follows. I. Muller: Trans. of the IRE, PCED, 4, 1953, Dec p 33; E. Borne: Proc. IRE, 47, No. 9, 1950; W. Hawkins: Nature, 1954, 174.

ASSOCIATION: Híradástechnikai Tudományos Egyesület (Communication Scientific Society); Távközlési Kutató Intézet (Telecommunication Research Institute).

Card 2/ 4

FORRO, Dezso; GAL, Istvan

Electronic circuits of long-distance dialing. Magy hir techn 12 no.2:
64-69 Ap '61.

1. Beloiannisiz Hiredastechnikai Gyar.

GAL, Istvan, foeloado

Changes in the railroad transportation tariff of live animals.
Kozleked kozl 20 no.50:827-829 13 D '64.

1. Ministry of Transportation and Postal Affairs, Budapest.

ISTVAN, GAL GAL, Istvan

Reaction rates of the formation of fatty amides, János
Holló and István Gal, Yearbook Inst. Agr. Chem., Technol.,
Univ. Tech. Sci. Budapest, Hung., 1952 III-1954 VIII, 18-31.

—The rate of decompn. of NH₄ palmitate (I) and of the simultaneous formation of palmitamide (II) were detd. to obtain data for the design of a suitable reaction vessel for the continuous manuf. of fatty amides. Tests involved 90-160° temp. for 0.75-8.0 hrs., and under N₂ atm. I was prepd. by the method of Kench and Mulkin (cf. C.A. 33, 3332). In the reaction I yields II, palmitic acid, NH₃, and H₂O. During the reaction samples were taken at intervals and analyzed. The sum of I and II was detd. with 0.1N HCl and phenolphthalein, I was detd. with Br-phenol as the indicator, and the difference corresponds to II. On the basis of reaction rates, the decompn. of I and the formation of II are reactions of the first order. The logarithm of the const. plotted as a function of 1/T gives a straight line. This permits extrapolation of the const. for higher reaction temps.

I. A. Sallard

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GAL, Istvan

Air pollution in corn starch manufacturing plant. Jeno
Toth and Istvan Gal. Yearbook Inst. Agr. Chem. Technol.,
Univ. Tech. Sci. Budapest, Hung. 1952 III-1954 VIII, 210-
24. --To collect data for the design of suitable ventilating
equipment the starch-dust and acid-fume content of the air
were detd. J. A. Sallard

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(1)

Gal, Istvan

Hungary/Chemical Technology - Chemical Products and Their Application. Medicinals.
Vitamins. Antibiotics, I-18

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 62928

Author: Gal, Istvan; Gombkoto, Geza

Institution: None

Title: Preparation of Crystalline Capsaicine

Original

Periodical: Kristalyos kapszaicin eloallitasa. Elem. ipar., 1955, 9, No 10,
313-314; Hungarian; Russian, English, and German resumes

Abstract: A new method has been worked out for obtaining capsaicine. The
latter crystallizes spontaneously from petroleum-ether extracts of
plant materials and can be isolated in very pure form.

Card 1/1

Gal, Istvan
HUNGARY / Chemical Technology. Chemical Products and Their
Application. Dyeing and Chemical Treatment of
Textiles.

H-34

Abst Jour : Ref Zhur - Khim., No 3, 1958, No 10,097

Author : Kralik, Ivan; Gal, Istvan

Inst : Not given

Orig Pub : Magyar textiltechn., 1956, No 10, 385-386

Title : Certain Problems of Stable Hydrophobic Finishes II. Tech-
nological Part.

Abstract : Recommendations are given on carrying out the technological
process of hydrophobic finishing fabrics out of cellulose
fibers by use of "fobit" (F), a commercial product of
the chlorinated stearylamiomethylpyridine type. When
the fabric is dipped and then 100% wringed out, a 5 gm/l
concentration of F is used (F is dissolved in denatured
alcohol, then diluted with water). Concentrations of
5 gm/l are useless, as the excess of F does not bind
and is washed out at the very first wash. CH_3COONa
(33% of the amount of F) is added in order to neutralize

GAL, I.

51. The twelve-channel telephony system "VK 12"
S. Lajko, I. Gál (Magyar Híradástechnika
Vol. 5, 1954, No. 11, pp. 186-188, 22 figs.)

To meet the ever increasing demand on telephony service, a twelve channel basic system has been elaborated which can subsequently be increased to 24 and then to 48 channels. The new twelve channel system complies in every respect with the specifications of the CCIF, it contains crystal filters, dry plate rectifier modulators and crystal controlled oscillators. The audio frequency input of the channels is made for 2 or 4 wire transmission, whereas the high frequency side is built for 4 wire transmission. The transmission is amplitude modulated and is carried out by the one side band system. The audio frequency band ranges from 300 to 3400 cps. Altogether 14 different carrier frequencies are required in the equipment, which must be generated with such accuracy that they be suitable for telegraphy service as well. This means that the stability should be at least 10^{-6} which can be achieved with a thermostat enclosed tuning fork or quartz crystal controlled oscillator. A duplicate system of the essential parts of the carrier frequency generating equipment is provided; this system is kept in reserve, and automatically cuts in as soon as a fault occurs in the equipment. The control of the equipment is executed by means of a continuous pilot signal, which is controlled on the receiver end by instruments. If the pilot signal fades or falls completely, an alarm is released. The pilot frequency is 60 kcps. The automatic indication of

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faults occurs on the transmitting as well as on the receiving end by acoustic and luminous signals. For feeding the equipment 220 V and 24 V a.c. and d.c. are necessary which are taken from the heavy current mains and from a storage battery with an emergency rotating converter.

GAL, I.

Up-to-date ringing and signaling transmission on multi-channel carrier circuits.

p. 70 (Magyar Híradastechnika. Vol. 8, no. 3, Sept. 1957. Budapest, Hungary)

Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 2,
February 1958

GAL', I.

Staire helps. Pozh. delo 7 no. 1:27 Ja '60. (MIRA 14:2)

1. Inspektor Otdela pozharnoy okhrany, redaktor "Pozharnogo
perts", g. Luts'k, Volynskaya oblasti'.
(Fire prevention--Study and teaching)

GAL', I.

Living work. Pozh.delo 7 no.11:29 N '61.

(MIRA 14:11)

1. Zamestitel' nachal'nika Otdela pozharney okhrany, Lutsk, Volynskaya oblast'.

(Volyn' Province--Fire prevention--Study and teaching)

GAL', I., dots.

"Finances of intercollective farm building organizations" by
N.Prikhod'ko, I.Ponomarenko, S.Likhoshva. Reviewed by I.Gal'.
Fin. SSSR 21 no.12:87-89 D '60. (MIRA 13:12)

1. Kiyevskiy institut narodnogo khozyaystva.
(Collective farms--Interfarm cooperation)
(Farm buildings)
(Prihod'ko, N.) (Ponomarenko, I.) (Likhoshva, S.)

GAL', I. [Hal', I.], dotsent

Let's improve the matter of creating capital assets and working capital for interfarm building organizations. Sil'. bud.
11 no.9:5-7 S '61. (MIRA 14:11)

1. Kiyevskiy institut narodnogo khozyaystva.
(~~Ukraine~~ Construction industry--Finance)

GAL, Ivan

Yugoslav

"Action of Na cacodylate and colchicine on various dehydrogenases," Chem.
Abs., 1939.

GAL, Ivan

Yugoslav

"Effect of org. acids on germination, growth and ascorbic acid content of wheat seedlings," Chem. Abs., 1941.

GAL, Ivan

Yugoslav

"Cholinesterase and the vegetative system," Chem. Abs., 1941.

GAL, Ivan

Yugoslav

"Estn. of cholinesterase activity in blood serum," Chem. Abs., 1949.

GAL, Ivan

Yugoslav

With P. Adler and L. Veigh, "Effect of structurally different local anesthetics on the cholinesterase activity of human serum," Chem. Abs., 1950.

GAL, Ivan

Yugoslav

With L. Vegh and J. Stangl, "Serum cholinesterase during pregnancy,"
Chem. Abs., 1951.

GAL, Ivan

Yugoslav

With L. Vegh, "Cholinesterase activity of serum," Chem. Abs., 1952.

GAL, IVAN

Nuclear Science Abstracts
July 15, 1954
Chemistry

PREPARATION OF URANINE TETRAFLUORIDE BY
PHOTOSYNTHESIS (VAN DER BEEK, J. H. J. and
BOLTON, E. "Berl. Buns. Ges. Physik. Chem." 58, 61-71 (1954) Jan.
Bolton's photosynthesis of U_3F_{10} by the reduction of
uranyl ions in the presence of formic acid under the
influence of sunlight is discussed. A method for the
photochemical preparation of UF_4 is proposed, based on
the reaction $UO_2(NO_3)_2 + C_2H_5OH + 4HF + UF_4 + H_2O +$
 $2H_2O + 2H_2$. Optimum conditions for UF_4 photosynthesis
are discussed. (LT, 19)

Gal, I.

Analytica Chimica Acta

POLAROGRAPHIC DETERMINATION OF URANIUM IN ORES IN ASCORBIC ACID SUPPORTING ELECTROLYTE.
M. Bazić, I. Gal, and E. Cyker. (Inst. of Nuclear Sciences "B. Kidrič", Belgrade, Yugoslavia). *Anal. Chim. Acta* 11, 586-9 (1954) Dec.

A polarographic determination of uranium in ores using 0.5M l-ascorbic acid as supporting electrolyte is described. Four different ores were analyzed, and the results compared with those obtained by other analytical methods. No previous chemical separations were necessary. The method is simple, rapid, and seems to be suitable for routine analyses of samples with a uranium content above 0.01%. In the concentration range 0.01 to 0.05%, the relative error of determination is 9 to 6%; above 0.05% U the precision is much greater. Fe, Ti, and Pb interfere in this method under the conditions described (pH 3.5 to 4.0), but the interference due to lead is eliminated in many cases by lowering the pH of the solution. (auth)

auth

GAL, Ivan

Ivan GAL

"Extraction Methods," Tehnika, No. 1, 1955, p. 1.

Extraction methods used in inorganic analyses are described. Theoretical grounds important for practical work are also given. The author mentions extraction methods used in the extraction of: nitrates, chlorides, bromides, fluorides, etc., and also for some other inorganic compounds.

27 17
 ✓ Extraction of chlorides from hydrochloric acid solutions with tributyl phosphate. Ivan J. Gal and Aleksandar Ruvarac. *Bull. Inst. Nuclear Sci. "Boris Kidrich" (Belgrade)* 8, 67-74(1958).—The partition of the chlorides of H^+ , Fe^{+++} , Fe^{++} , UO_2^{++} , Cd^{++} , Ni^{++} , Co^{++} , Sr^{++} , Zr^{++} , Ce^{+++} , RuO_4^{++} , and VO_3^- between 30% by vol. of tributyl phosphate (I) in Bu_2O and aq. solns. of different HCl concns. was detd. The dependence of the extn. on the concn. of I in the org. phase for some of these elements was also investigated. Possibilities of mutual seps. are discussed and formulas for some of the complexes extd. are proposed.

Bernard Rubin

Distr: 4E4J/4E3d

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GAL, Ivan; RUVARAC, Aleksandar

Separation of uranium, plutonium, and fission products on
zirconium phosphate. Pt. 1. Bul Inst Nucl 13 no.1:1-17
Ap '62.

1. The Boris Kidrich Institute of Nuclear Sciences, Hot Laboratory,
Department, Vinca.

RUVARAC, A.; GAL, I.

Separation of uranium, plutonium, and fission products from the HNO_3 solution on zirconium phosphate. Pt.2; abstracts. Glas Hem dr 27 no.9/10:487-488 '64

1. The Boris Kidric Institute, Hot-Laboratory Department, Belgrade-Vinca.

GAL, I.

Reprocessing exhausted nuclear fuel at the Boris Kidric
Institute of Nuclear Sciences, Vinca; abstract. Glas Hem dr
27 no.9/10:483 '64

1. The Boris Kidric Institute of Nuclear Sciences, Hot-Labo-
ratory Department, Belgrade-Vinca.

GAI, Ivan, dr hem.

Reprocessing of nuclear fuel. Nuklear energija 1 no.2/3:15-18 '64.

1. Head, High-Power Laboratory of the Boris Kidric Institute of Nuclear Sciences, Belgrade-Vinca.

GAL, I. S.

Gál, I. S. A theorem on convex curves. Acta Univ. Szeged. Sect. Sci. Math. 11, 167-168 (1947).

An independent proof (for convex polygons and thence by passage to the limit for convex curves) of a result of A. Rényi [preceding review, inequality (1)].

L. C. Young (Princeton, N. J.).

Source: Mathematical Reviews, 1948, Vol 9, No. 3

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